

Basic Information

Product Name	Anti-CaMKII Alpha/CAMK2A Antibody
Gene Name	CAMK2A
Source	Rabbit
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB, ELISA
Contents	500 ug/ml antibody with PBS , 0.02% NaN ₃ , 1 mg BSA and 50% glycerol.
Immunogen	E. coli-derived human CaMKII alpha recombinant protein (Position: L392-R457).
concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	54KD
Dilution Ratios	Western blot(WB):1:500-2000 (ELISA): 1:100-1000

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

Calcium/calmodulin-dependent protein kinase type II alpha chain (CaMKII α) is an enzyme that in humans is encoded by the CAMK2A gene. The product of this gene belongs to the serine/threonine protein kinases family, and to the Ca(2+)/calmodulin-dependent protein kinases subfamily. Calcium signaling is crucial for several aspects of plasticity at glutamatergic synapses. This calcium calmodulin-dependent protein kinase is composed of four different chains: alpha, beta, gamma, and delta. The alpha chain encoded by this gene is required for hippocampal long-term potentiation (LTP) and spatial learning. In addition to its calcium-calmodulin (CaM)-dependent activity, this protein can undergo autophosphorylation, resulting in CaM-independent activity. Two transcript variants encoding distinct isoforms have been identified for this gene.

Reference

Anti-CaMKII Alpha/CAMK2A Antibody被引用在1文献中。

Selected Validation Data

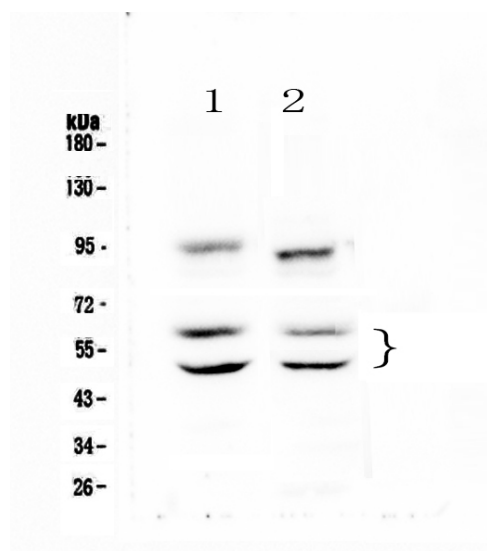


Figure 1. Western blot analysis of CaMKII alpha using anti-CaMKII alpha antibody (A03241-1). The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat brain tissue lysates, Lane 2: mouse brain tissue lysates. probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for CaMKII alpha at approximately 50, 60KD. The expected band size for CaMKII alpha is at 54KD.